

CLAIM AMENDMENTS

Listing of Claims

Claim 1 (Currently Amended)

Claim 2 (Original)

Claim 3 (Currently Amended)

Claim 4 (Original)

Claim 5 (Currently Amended)

Claims 6 through 8 (Original)

Claim 9 (Currently Amended)

Claims 10 and 11 (Original)

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Amended Claims

1. (Currently Amended) An irradiation apparatus comprising:

a NEMA 4 watertight housing that forms an enclosure and which has a floor in which an irradiation window opening is defined,

5 a quartz window disposed across said window opening in watertight sealed engagement therewith,

a microwave excited ultraviolet radiation generator that includes an electrodeless lamp that produces ultraviolet radiation positioned within said watertight housing proximate said window opening to emit said ultraviolet radiation through said

quartz window to an area at the exterior of said housing beneath said quartz window,

10 a reflector positioned within said enclosure relative to said microwave excited ultraviolet radiation generator to focus ultraviolet radiation therefrom upon said quartz window,

an air inlet duct to said housing for directing cooling air toward said electrodeless lamp, and

15 an air outlet duct from said housing for withdrawing from said housing air that has passed said electrodeless lamp.

3. (Currently Amended) An irradiation apparatus according to Claim 3 1 further characterized in that said baffle has perforations defined therethrough.

5. (Currently Amended) Apparatus for irradiating packaging materials to neutralize harmful bacteria comprising:

a NEMA 4 waterproof housing that forms an enclosure and which has a floor in which an irradiation window opening is defined,

5 a quartz window disposed across said window opening in watertight, sealed engagement therewith,

a microwave excited ultraviolet radiation generator that includes an electrodeless lamp that produces ultraviolet radiation positioned within said watertight housing proximate said window opening to emit said ultraviolet radiation through said quartz window to packaging materials located outside said housing beneath said quartz window,

a reflector positioned within said enclosure relative to said microwave

excited ultraviolet radiation generator to focus ultraviolet radiation therefrom upon said quartz window.

15 an air inlet duct to said housing for directing cooling air toward said electrodeless lamp, and

 an air outlet duct from said housing for withdrawing from said housing air that has passed said electrodeless lamp.

9. (Currently Amended) A method of irradiating articles of packaging to neutralize harmful bacteria utilizing irradiation apparatus that includes:

 a NEMA 4 watertight housing that forms an enclosure and which has a floor in which an irradiation window opening is defined,

5 a quartz window disposed across said window opening in watertight sealed engagement therewith,

 a microwave excited ultraviolet radiation generator that includes an electrodeless lamp that produces ultraviolet radiation positioned within said watertight housing proximate said window opening to emit said ultraviolet radiation through said quartz window to an irradiation treatment area at the exterior of said housing beneath said quartz window,

10 an air inlet duct to said housing, and

 an air outlet duct from said housing, the steps comprising:

 conveying food packaging through said irradiation treatment area,

15 and

 concurrently providing power to said electrodeless lamp to

irradiate said food packaging to neutralize harmful bacteria thereon, and
focusing radiation from said electrodeless lamp onto said quartz
window.